

## what's in focus

Winter 2005



Greenwood Lake Restoration Underway From TMDL to action



Look for 2006 RFP for 319(h) Grants Check the DWM website



Save the Date for Macroinvertebrate Training in March



Division of Watershed Management Reorganization Completed Focused on function



Eleven Years of River Monitoring Data Presented River monitors learn about health of South Branch



Highlands Water Protection and Planning Act Exemption reviews



NJ Watershed Ambassadors Make a Difference in Camden Tree planting, storm drain labeling, and litter clean-ups



Making a Splash at a Rainy Day Water Festival A sea of children learn about water



Water Conservation
Begins at Home
Things you can do to conserve water

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Data Needed for New Jersey Water Quality Report



DEP Honors Environmental Leaders and Innovators Winners include watershed leaders



Watershed Educators Conference Set for June 2005

## **Greenwood Lake Restoration Underway**

by Barbara Hirst, Division of Watershed Management

Development of the Total Maximum Daily Load (TMDL) for Greenwood Lake presented unique opportunities for coordination between New Jersey and New York. Both states have identified Greenwood Lake as impaired because of the effects of eutrophication. It is characterized by excessive loading of silt, organic matter, and nutrients, which causes high biological production and decreased basin volume. Symptoms of eutrophication include oxygen super-saturation during the day, oxygen depletion during night, and a high sedimentation rate. Phosphorus is most often the limiting factor in the process of eutrophication in freshwater lakes. As a result, phosphorus is the chemical constituent for which loading capacity is determined in the Greenwood Lake TMDL.

#### **Greenwood Lake Commission Formed**

Recognizing the significance of Greenwood Lake and the need for interstate cooperation, given its location, lawmakers both in New Jersey and New York passed legislation to form the bi-state Greenwood Lake Commission to address environmental issues in Greenwood Lake. The 11-member commission

(GREENWOOD LAKE continued on page 14)



Sunset Goshen Pond #1 photo by Michael A. Hogan. www.hoganphoto.com

## **watershed** focus

is a publication concentrating on watershed management, stormwater and nonpoint source pollution management issues in New Jersey. Send comments and subscription requests to:

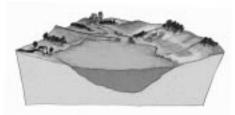
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### what's a watershed?

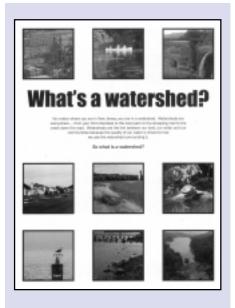
A watershed is the area of land that drains into a body of water such as a river, lake, stream or bay. It is separated from other systems by high points in the area such as hills or slopes. It includes not only the waterway itself but also the entire land area that drains to it. For example, the watershed of a lake would include not only the streams entering the lake but also the land area that drains into those streams and eventually the lake. Drainage basins generally refer to large watersheds that encompass the watersheds of many smaller rivers and streams.

## Look for 2006 RfP for 319(h) Grants

The new State Fiscal Year (SFY) 2006 Request for Proposals (RfP) should be published in March 2005. As in prior funding cycles, once the RfP is published it will be available on the Division of Watershed Management's website under the Nonpoint Source Program at www.nj.gov/dep/watershedmgt/nps\_program.htm. Funding decisions for the SFY 2005 319(h) awards are due in March 2005.

#### **COMING SOON!**

The 3rd Annual Volunteer Monitoring Summit hosted by the Watershed Watch Network, will be held on November 4 and 5, 2005. The two-day event will take place at the Clarion in Edison, NJ.

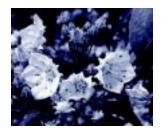


#### What's a Watershed? brochure is back in stock!

To get your copies of this and other Division of Watershed Management Brochures call (609) 292-2113 or email watershed@dep.state.nj.us. You can also access some of the brochures online at www.nj.gov/dep/watershedmgt/publications.htm

#### **Save the Date for Stream School in March**

Led by the Stroud Water Resource Center's internationally acclaimed staff, Stream School is a two-day training course that focuses on macroinvertebrate identification. Volunteer monitoring program organizations and members are encouraged to take advantage of this course. The course is designed to help participants improve their identification skills. Or take their skills one-step further. The Stream School is scheduled for March 17 and 18 from 9 a.m. to 4 p.m. in Gladstone. For more information, call Danielle Donkersloot at (609) 292-2113.



**Correction:** In the last issue of Watershed Focus, the photo of the Mountain Laurel on the cover was mistakenly uncredited. The photo was taken by Michael A. Hogan of Michael Hogan Photography. Please visit his website for more fine art and photography of Southern New Jersey at www.hoganphoto.com

## Division of Watershed Management Reorganization Completed

The DEP Division of Watershed Management has realigned staff responsibilities in its bureaus and offices as part of a reorganization that focuses on function rather than geography and that will enhance its responsiveness to the public.

"We remain firmly committed to the watershed approach to water resource management from both a quantity and quality perspective," said Division Director Lawrence Baier. The reallocation of staff resources will enable the Division to act more quickly in its work to protect and restore New Jersey's water resources.

The Division of Watershed Management comprises the bureaus of Environmental Analysis and Restoration, Watershed Regulation and Watershed Planning, and the offices of Watershed Education, Estuaries and Monitoring and Water Supply Policy.

The Bureau of Environmental Analysis and Restoration (BEAR), managed by Barbara Hirst, develops technical "tools" that the Division and its partners can use in watershed planning, protection and restoration. The bureau's responsibilities include developing:

- Total Maximum Daily Loads (TMDLs);
- Rules and regulations that include stormwater management, water quality management planning, smart growth and portions of the Highlands rules;
- Model ordinances and guidance concerning rule implementation.

The bureau's success in meeting the DEP's TMDL and rule obligations largely influenced the Division's decision to reorganize. In 2005, BEAR will continue compliance with the TMDL development schedule including finalizing the Passaic River Basin phosphorus TMDL, adopting new Water Quality Management Planning rules, developing rules required by the Highlands Act, and developing tools to help implement the state's stormwater management rules, such as updates to the Best Management Practices Manual and guidance for determining compliance with the required use of non-structural stormwater management practices.

The Bureau of Watershed Regulation (BWR) consolidates the Division's regulatory programs including water quality and wastewater management planning, stormwater management reviews, and applicability determinations under the Highlands Water Protection and Planning Act. The newly appointed manager, Terry Pilawski, comes to the Division from the NJPDES Discharge to Groundwater Permitting Program, and brings a wealth of experience in wastewater management, treatment technology, groundwater hydrodynamics, and permitting. BWR will use the Division's regulatory authority to implement Department policy including TMDLs, source water protection, critical habitat protection and water supply planning. In 2005, BWR will eliminate the backlog of water quality management plan amendment applications, expedite regulatory decisions in smart growth areas, implement Highlands applicability and water quality consistency determinations, and digitize adopted sewer service areas.

The **Bureau of Watershed Planning (BWP)** consolidates the voluntary watershed partnership aspects of the Division under the leadership of Kenneth Klipstein. The bureau's functions include:

- Providing technical support to independent watershed organizations, associations and local and county government units;
- Administering federal pass-through grant programs;
- Developing and overseeing regional water supply plans including those in Cape May, the Southeast and Northeast;
- Promoting voluntary implementation of Department initiatives such as TMDLs, source water protection, and septic management plans.

BWP will focus on watershed restoration plans that provide a specific blueprint for restoring and protecting a waterbody. The plan must identify the specific sources of pollution, remedial actions, cost estimates for implementing the remedy and partnerships between the public and private sectors required for implementation. In 2005, BWP will develop watershed restoration and protection plans for one stream segment in each of the 20 Watershed Management Areas; and manage federal pass-through grant funds to accomplish the implementation of watershed restoration plans and implement TMDLs where those studies have been completed and provide the required degree of specificity. In addition, BWP will finalize the Southeast Water Supply Study, initiate the Northeast and Toms River-Metedeconk Water Supply Studies and complete the supply and demand portions of the Cape May Water Supply Study.

The Office of Watershed Education, Estuaries and Monitoring (OWEEM), managed by Kerry Kirk Pflugh, includes functions of the former Office of Outreach and Education. The office develops and coordinates educational tools, including publications, the Division Website, outreach planning, volunteer monitoring program, the AmeriCorps NJ Watershed Ambassadors program and the Urban Fishing and fish consumption advisory programs. Under the reorganization, the new responsibilities in the OWEEM are the coordination and administration of the Cooperative Coastal Monitoring Program for New Jersey's beaches, the Clean Shores Program and the DEP's participation in the three National Estuary Programs. For 2005, OWEEM will integrate the coastal monitoring program with the national database required by the federal BEACH Act, represent the Department on the management committees of the three National Estuary Programs, and develop a communications plan for implementing the Highlands Act.

In addition, the water policy group has been reorganized into the Office of Water Supply Policy (OWSP). Headed by Joseph Mattle, OWSP primarily coordinates the update of the Statewide Water Supply Plan. The unit coordinates the Water Supply Advisory Council and water supply policy development and ensures that regional water supply plans are consistent with those policies. In 2005, OWSP will complete an update to the Statewide Water Supply Plan and issue water supply demonstration grants.

## ELEVEN YEARS OF RIVER MONITORING DATA PRESENTED

#### River Monitors Learn About Health of South Branch

by Nicole Rahman, South Branch Watershed Association

he South Branch Watershed Association presented the results of its 2004 river monitoring season at its annual conference in January. Danielle Donkersloot, the DEP's Volunteer Water Quality Monitoring Coordinator, presented "Volunteer Water Quality Monitoring Efforts in New Jersey." The message was motivational and to the point. "Data collected by volunteer monitors in New Jersey is important and will be used by various organizations and agencies for everything from education, to stewardship,

to regulation," said Donkersloot. She noted that the number of sites monitored and the frequency of monitoring could not be achieved without the efforts of

volunteer monitors.

Through the Association's volunteer biological monitoring program,

11 years of data have been collected at 17 sites along the South Branch Raritan River and its tributaries. Every June, trained volunteer "watershed stewards" collect a macroinvertebrate "bug" sample at an assigned site within the South Branch Raritan River watershed. Volunteers follow an EPA-approved protocol to ensure accuracy and precision in collection of data. The sample is then sent to a certified lab for complete analysis.

Different species of juvenile "bugs" living on the bottom of the river can reveal much about water quality. Following the analysis of these "bugs," each site is assigned a New Jersey Impairment Score of non-impaired, moderately impaired, or severely impaired. Of the 17 sites monitored this year, 14 were non-impaired, 3 were moderately impaired, and none were severely impaired. The results represent an improvement from last year when 8 sites were found to be moderately impaired.

"It is encouraging to see an improvement over last year's results," said Don Einhorn, Executive Director of the

Association. According to Einhorn, wide fluctuations in precipitation levels over the past several years have potentially impacted results and this past year's monitoring was done under more normal conditions.

Now that the Association has 11 years of data, it's time to analyze it further and document any trends that are revealed in a comprehensive report. The Association is currently

seeking the resources to complete the analysis and the report. The data

will be used to help improve and protect the water quality within the watershed.

"This data is extremely useful in gauging the health of the watershed," said Einhorn.

"A comprehensive analysis will tell us

which streams may be showing signs of stress. It's not unlike having your pulse and blood pressure checked during an annual physical. If one is off, it usually means something is going on. These bugs are the pulse of the watershed system, they tell us if we need to look further to determine what is causing problems." Einhorn said this information can then be used to properly plan for accommodating or curtailing development and for focusing restoration efforts.

The Association thanks all of the dedicated volunteers, monitoring advisory committee members, spring workshop trainers and sponsors who make the monitoring program possible.

For more information about the Association or becoming a volunteer monitor, please contact Nicole Rahman, Volunteer Monitoring Program Director, at (908) 782-0422, or visit the Association's website at www.sbwa.org.

# HIGHLANDS WATER PROTECTION AND PLANNING ACT

#### **Exemption Reviews**

by Colleen Harrington, Division of Watershed Management

The New Jersey Highlands Region is an essential source of clean drinking water for one-half of the State's population. This 800,00-acre area in the northern section of the State also holds innumberable social, cultural, and economic benefits and opportunities. In recognition of the great importance and value of the Highlands Region, the New Jersey Legislature enacted the Highlands Water Protection and Planning Act (Highlands Act). The Highlands Act seeks to protect this area by ensuring that development occurs in appropriate areas and that the environment and resources of the region are protected. The Highlands Act provides needed extra protection by requiring that various "enhanced standards" be applied to proposed projects unless those proposals qualify for an exemption.

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BENEFITS AND OPPORTUNITIES.

The Enhanced Standards include the following: (*These are in* summary form. The Highlands Act should be reviewed for more detail.)

A mandatory 300-foot buffer from all Highlands open water as defined by the Highlands Act

A mandatory antidegradation policy for any new or expanded point source discharge to Highlands water

Reduction of the water allocation threshold to 50,000 gallons per day

Zero percent net fill in flood hazard areas

A maximum of three percent impervious cover for each existing lot

No development, other than linear development, on slopes of more than 20%

Forest clearing limited to within 20 feet of structures and 10 feet of driveways

All projects/activities that meet the definition of "Major Highlands Development" are potentially regulated by the Highlands Legislation. However, the Highlands Act recognizes that there are certain situations in which an exemption from these provisions is appropriate. Therefore, written into the Highlands Act is a list of exemptions that may be applied to qualifying projects. Since the signing of the Highlands Act in August of this year, and through the end of December 2004, the Department has received 137 applications for proposed projects requesting an exemption to the Highlands Act.

The first step in the exemption review process is to determine whether the proposed project is, in fact, in the Highlands Preservation Area. If the proposed project/activity falls within the designated Preservation Area, one of the exemptions may apply. Included in this list are three different exemptions for single family homeowners.

#### THERE ARE EXEMPTIONS FOR:

Farming and horticulture activity

Major Highlands developments that have received certain municipal and State approvals on or before March 29, 2004

Reconstruction of a building or structure within 125 percent of the prior footprint of impervious surfaces

Improvement for non-residential purposes to a place of worship

An activity conducted in accordance with an approved woodland management plan

Construction or maintenance of trails with non-impervious surfaces

Routine maintenance and operation, rehabilitation, preservation, reconstruction, or repair of transportation or infrastructure systems

Construction of transportation safety projects and bicycle and pedestrian facilities

Routine maintenance and operation, rehabilitation, preservation, reconstruction, repair or upgrade of public utilities lines

Reactivation of rail lines

Construction of a public infrastructure project or capital project approved by public referendum prior to January 1, 2005

Mining, quarrying, or production of ready mix concrete, bituminous concrete, or Class B recycling materials

Remediation of a contaminated site

Activities on lands of a federal military installation

A Major Highlands Development located within the area designated as Planning Area 1 (Metropolitan), or Planning Area 2 (Suburban) as designated pursuant to P.L. 1985, c.398 (C. 52:18A-196 et seq.) as of March 29, 2004 has been the subject of a settlement agreement and stipulation of dismissal filed in the Superior Court, or a builder's remedy issued by the Superior Court, to satisfy the constitutional requirement to provide for the fulfillment of the fair share obligation of the municipality in which the development is located.

Each of these exemptions has its own set of requirements and conditions that an applicant must meet in order to be determined exempt from the Highlands Act.

Based on the applications received to date, the three most commonly requested exemptions have been for: property owners or purchasers who seek to build a house on their property for themselves or a family member; single-family homeowners who see to build an addition

THE HIGHLANDS ACT SEEKS TO PROTECT THIS AREA BY ENSURING THAT DEVELOPMENT OCCURS IN APPROPRIATE AREAS AND THAT THE ENVIRONMENT AND RESOURCES OF THE REGION ARE PROTECTED.

to an already existing house; and the construction of housing developments that have received approvals prior to the Highlands Legislation.

The Highlands Act also established a Highlands Water Protection and Planning Council, which is charged with developing a management plan for the overall Highlands Region, including both the Preservation and Planning Areas. On December 16, 2004, the Highlands Council held their first meeting and began the business of creating a regional master plan for the preservation and planning area and along with it a set of regulations for the implementation of this master plan. Once those regulations are in place, they will be adopted by both the Department and affected municipalities as an implementation tool to ensure all project/activities within the Highlands Region comply with the Regional Master Plan.

To find out more information about the Highlands Water Protection and Preservation Act, visit www.state.nj.us/dep/highlands/.

## NJ Watershed Ambassadors Make a Difference in Camden

In celebration of the 14th annual national Make A Difference Day, the DEP's AmeriCorps Watershed Ambassadors demonstrated their commitment to environmental stewardship by planting 20 Japanese lilac trees along Camden's Waterfront South, labeled storm drains and picked up litter along several streets.

The New Jersey Tree Foundation organized the event as part of its Urban Airshed Reforestation Project and provided the trees, shovels, gloves, stencils and other supplies. The foundation members also demonstrated how to properly plant the trees and discussed the benefits trees bring to communities. (See related story.)

Participants also labeled storm drains to raise public awareness about stormwater pollution and to help residents understand that, contrary to popular belief, storm drains do not carry water to treatment plants. Instead, water that runs into storm drains flows directly into the nearest stream or river. As a reminder, the volunteers stenciled storm drains with the message "Do not dump, Drains to waterway." Volunteers also picked up litter from the streets to prevent it from washing into waterways during rainstorms and to improve the appearance of the neighborhood.

"Make a Difference Day," celebrated every year on the fourth Saturday in October, encourages Americans to embrace volunteerism to improve the quality of life in their communities.

The New Jersey Watershed Ambassadors program is a community-oriented AmeriCorps environmental program hosted by the Division of Watershed Management since September 2000. Through this program, AmeriCorps members undergo two weeks of intensive training in volunteer monitoring techniques, watershed issues and presentation skills. Then the members are placed in watershed management areas across the state, ready to serve their communities.

Watershed Ambassadors monitor New Jersey's rivers through Visual Assessment and Biological Assessment volunteer monitoring protocols, and train community volunteers to use these two monitoring techniques. Watershed Ambassadors also offer interactive presentations on watershed issues to community organizations and schools. Members educate students and residents about water issues and empower them to become involved in their watershed.

For more information on the New Jersey Watershed Ambassadors Program, contact Michelle Ruggiero at (609) 292-2113 or michelle.ruggiero@dep.state.nj.us

#### Trees in the Urban Environment

Planting trees provides many benefits to urban areas. Trees provide shade, filter water, reduce erosion, improve air quality, lower temperatures, provide habitats for wildlife and beautify neighborhoods. Trees also reduce the "urban heat island" effect, created by the heat stored within large amounts of asphalt, concrete and buildings. For this reason, urban areas often are 5 to 10 degrees higher than surrounding suburban and rural areas. Higher temperatures can increase levels of smog, putting city residents at greater risk for respiratory ailments and other health problems.





## MAKING A SPLASH AT A RAINY DAY WATER FESTIVAL

by Amy Messeroll, NJ Project WET Coordinator

Even the rain couldn't dampen the spirits of more than 210 grade-school students and dozens of community volunteers who gathered at Cinnaminson's Palmyra Cove Nature Park to learn about the importance of water in their everyday lives.

The day-long event was the third successful Water Festival run by Cinnaminson School District's Project Challenge Teacher Elaine Mendelow. A sea of children in matching bright blue water festival shirts explored stations with names like H2Olympics, the Long Haul, Bubbleology, Dynamic Watershed, Common Water and Enviroscape. The students literally became immersed in the topic when it started to rain. Even a group toting turtles got into the action to promote awareness of nonpoint source pollution and its effect on wildlife in the local Pompeston Creek Watershed.

Water Festivals are made possible through grants from

New Jersey Project WET, sponsored by the Division of Watershed Management. In 2004, six Water Festivals were held throughout New Jersey, engaging and educating students on a wide variety of topics related to water conservation. Water Festival funding is available to teachers who have participated in a Project WET workshop. Festivals are held in May and September. May Water Festivals celebrate either New Jersey's Watershed Awareness Month or Clean Drinking Water Week, which is the first week in May. September Water Festivals commemorate National Water Education Day, which this year falls on September 23rd.

For more information on Water Festivals, call (609) 897-9400 or email NJWET@dep.state.nj.us

## Water Conservation Begins at Home

Clean, fresh water is a finite resource. As New Jersey grows, attracting new residents and businesses, so does the demand for water. To ensure a healthy and sustainable future for all New Jersey residents, water conservation must become a year round, long-term practice.

Conserving water means using less water to perform the same task. Water conservation can help New Jersey residents save money on their utility bills. It also helps to protect the environment by maintaining adequate water levels in streams and rivers, which provide habitat for our wildlife and recreational opportunities for our residents and visitors. For well water or septic system users, conserving water can extend the

CONSERVING WATER MEANS USING LESS WATER TO PERFORM THE SAME TASK.

life of their system and delay the need for repairs. For those who depend on public water supplies, conservation can lower water and energy bills. Water conservation also helps avoid the development of costly new source supplies and construction of new wastewater treatment plants.

Using water wisely is the right thing to do year round. Following are some water conservation tips:



#### In the bathroom:

(Where over half of all indoor water use occurs)

Turn the water off - minimize water use while shaving and brushing your teeth.

Replace faucet aerators - new faucet aerators are rated at 1.5 gallons per minute or less.

Shorten your shower to one minute - cutting back on your shower time will save water and energy; also turn off the shower while soaping up and fill the tub only half way when taking a bath.

Install a low flow showerhead - low flow showerheads use 2.5 gallons per minute compared to conventional showerheads, which use 15-36 gallons per minute.

Reuse clean household water - instead of wasting water while waiting for the shower or faucet to warm up, collect that water and use it for plants indoors or outside.

Never use your toilet as a wastebasket don't flush garbage down your toilet; it wastes water.

Install 1.6 gallon low flow toilets - if your home was built before 1992, then consider replacing your water wasting toilet (3.5-7 gallons) with a new low flow

model. 1.6 gallon toilets have been required on all new development and renovations since 1992. If a family of four replaced all of their 3.6 gpf toilets with 1.6 gpf toilets, they would save more than 14,000 gallons of water per year.

Fix leaking toilets and faucets - research shows that leaks account for more than 8% of all indoor home water use. Home-improvement stores are among the resources consumers can use for help with repairing leaks.

#### In the kitchen:

Keep drinking water in the fridge - don't let the tap run until the water is cool, fill a pitcher and put it in the refrigerator.

Don't pre-rinse dishes - most newer dishwashers don't require pre-rinsing. If you don't have a dishwasher, fill a sink or basin with 2 gallons of water to wash your dishes, instead of letting the water run, which can waste 5 to 20 gallons.

Wash only full loads - use your dishwasher only when it's full, and you will save water and energy.

Fix leaking faucets - faucet leaks are usually attributed to old gaskets or O-rings and corroded valve seats.



Reuse clean household water - collect water that is used to boil eggs, steam vegetables or make hot tea, for example, and use it to water plants both indoors and in the garden.

Start a compost pile - put household food waste, newspapers, coffee grinds and plant material into a compost pile. It reduces the amount of garbage dumped in landfills and saves water used while running the garbage disposal.

Do not use water to thaw frozen foods thaw frozen food overnight in the refrigerator.

#### In the laundry room:

Wash only full loads - you will save water and energy.

Purchase a new water efficient washing machine-the average clothes washer will cost almost \$1,100 to \$1,500 to operate over its lifetime (based on 8 loads of clothes a week for 14 years, using 13,000 kilowatt-hours of electricity at today's average cost).

For more information on water conservation, contact Meghan Kiley Gosselink, Water Resources Policy Office at (609) 777-0586 or by email at meghan.kiley@dep.state.nj.us.

**DATA NEEDED** FOR NEW JERSEY'S **INTEGRATED WATER QUALITY MONITORING AND ASSESSMENT** REPORT

The DEP is looking for water quality related data (chemical, physical and/or biological) to use in developing the 2006 Integrated Report of Waterbodies. A request for data was recently published in the New Jersey Register (37 N.J.R. 361(a)) and is available on the Department's website at www.nj.gov/dep/wmm/sgwqt/wat/index.html. The DEP will accept data for the 2006 Report until July 15, 2005. Any data received after that date will be used for subsequent assessments as outlined in this notice.

The federal Clean Water Act under Section 303(d) requires states to identify "Impaired Waters" where specific designated uses are not supported. Section 303(d) of the Act requires states to periodically assess and report on the overall quality of their waters. The DEP fulfills these two requirements by developing an Integrated Water Quality Monitoring and Assessment Report every two years. The next Report is due to U.S. Environmental Protection Agency on April 1, 2006. The report is used to establish priorities for implementing water quality improvement measures including, as appropriate, development of Total Maximum Daily Loads (TMDLs).

The DEP intends to use all appropriate and readily available data in generating the Integrated Report. Given the importance and long-term ramifications of the Integrated Report, quality assurance considerations are important to maintain data quality.

In determining which data are appropriate, the DEP will consider quality assurance/ quality control, monitoring design, age of data, accurate sampling location information and data documentation. For more information, visit the DEP's website.

For more information regarding the eligibility of data, contact Danielle Donkersloot, Volunteer Monitoring Coordinator, at (609) 633-9241 or danielle.donkersloot@dep.state.nj.us. To submit data electronically email to wat@dep.state.nj.us.

## DEP HONORS ENVIRONMENTAL LEADERS AND INNOVATORS

Excellence Awards Recognize Significant Environmental Achievements in New Jersey

New Jersey Department of Environmental Protection (DEP) Commissioner Bradley M. Campbell honored environmental leaders in nine categories during the Department's annual Environmental Excellence Awards.

"These awards recognize the leaders in New Jersey's towns, companies, authorities, and military bases who are achieving superior environmental performance," Campbell said. "These leaders are setting the standard for innovation and commitment, while reminding us that the best ideas in environmental protection emerge from local problem solving rather than traditional regulation."

The DEP received a record number of nominations, which were judged on the basis of the documented environmental benefits, innovation, and long-term impact of their work to the environment. Last November, the DEP presented awards in nine categories: Clean Air, Clean and Plentiful Water, Safe and Healthy Communities, Open Space Protection and Preservation, Healthy Ecosystems, Innovative Technology, Environmental Stewardship, Environmental Leadership and Environmental Education.

The winners and honorable mentions in the water-related categories are:

#### Clean and Plentiful Water Winner -Sourlands Planning Council

The Sourlands Planning Council received an award for its comprehensive efforts to improve this region's water quality and quantity in the Sourlands Region of Hunterdon, Mercer and Somerset Counties. Efforts include advocating and promoting municipal rezoning and resource protective ordinances as well as developing a comprehensive management plan designed to preserve natural and cultural resources and to encourage consistent smart growth land-use strategies.

#### Clean and Plentiful Water Honorable Mention - Atlantic County Utilities Authority

The ACUA earned an honorable mention for its efforts in wastewater treatment, wastewater recycling, promoting water conservation, household hazardous waste collection, and sponsorship of AmeriCorps Members.

#### Clean and Plentiful Water Honorable Mention - Southeast Morris County Municipal Utilities Authority

This honorable mention recognizes SMCMUA's project to construct a state-of-the-art membrane water filtration plant with a 2.5 million gallons per day capacity at the Clyde Potts Reservoir to ensure provision of high quality drinking water to their customers.

#### Clean and Plentiful Water Honorable Mention - Janssen Pharmaceutica, Inc.

Janssen Pharmaceutica, located in Titusville, Mercer County, received an honorable mention award for several initiatives related to watershed protection. Janssen's wide-ranging program includes innovative stormwater management techniques, use of buffers along waterbodies and pollution prevention programs.

#### Clean and Plentiful Water Honorable Mention - North Jersey Resource Conservation & Development Council and Hunterdon County Planning Board

These two agencies earned an honorable mention for their joint effort in producing a handbook entitled

"Building Greener Communities -Planning for Woodland Conservation," which touts the water quality benefits of protecting healthy woodlands.

#### Innovative Technology Winner -Township of Burlington

This award recognizes Burlington Township's innovative wastewater treatment facility. In addition to preventing pollution by discharging a cleaner effluent, other environmental benefits of this new facility include resource and energy conservation. The treatment plant saved the township \$4 million in construction costs and continues to save thousands of dollars each year in operations and maintenance costs.

#### Environmental Stewardship Winner -Alice Hemphill

Alice Hemphill, Chairwoman of the Manasquan Environmental Commission since 1990, was recognized as this year's recipient of the Environmental Stewardship award for her tireless efforts as an environmental advocate and for preserving land and protecting natural resources in Manasquan (Monmouth County).

#### **Greenwood Lake**

(continued from page 1)

comprises representatives from municipal, county and state government from both states as well as members of the public. The Greenwood Lake Commission is pursuing various management strategies and studies to improve the condition of the lake.

#### **Weed Harvesting**

Municipal officials in Greenwood Lake, New York, conduct macrophyte or "weed" harvesting during the summer months. The Greenwood Lake Commission worked with West Milford officials to begin harvesting events and to acquire a Commission also is exploring a dredging proposal with the U.S. Army Corps of Engineers as a component of a stump removal project. The Village of Greenwood Lake, New York has just completed a federally funded \$250,000 dredging project on its portion of the lake.



photos courtesy of www.villageofgreenwoodlake.org

#### **Mapping Stormwater Outfalls**

West Milford Township has completed geographic information systems (GIS) mapping of all stormwater outfalls. Passaic County also has finished mapping of all stormwater outfalls on county roads. This information will be integrated into the current 319(h) project.

#### **Catch Basins for Belcher's Creek**

Under an earlier 319(h) project, West Milford Township received \$90,000 to control nonpoint source pollution by installing 19 catch basins in the Belcher's Creek subwatershed. Sediment removal from these catch basins, as part of the maintenance program, will prevent deposit of an estimated 2,452 cubic feet of sediment annually.

weed harvester, in partnership with the New Jersey Department of Environmental Protection. As a short-term measure, weed harvesting removes phosphorus associated with the plant biomass and improves conditions for boating in the shallow portions of the lake.

#### **Dredging Provides Short-term Relief**

Dredging is another short-term measure for reducing the load of phosphorus and impeding the growth of rooted aquatic plants, although it does not address all sources of sedimentation and phosphorus loading.. A bill for dredging Greenwood Lake and associated activities has been introduced in the New Jersey Legislature. The Greenwood Lake

#### **Drawdown for Weed Control**

A Drawdown/Water Level Management Plan for Greenwood Lake was adopted in 1997 to control aquatic weeds and enhance water quality while maintaining the required minimum passing flow below the dam. Greenwood Lake Watershed Management District, Inc. requested a drawdown of five feet for 2005. The District will also submit an evaluation of the drawdown's effect on the lake's ecology and the need for future drawdowns.

#### **Septic System Management**

Septic management measures will be an important component of the implementation plan. Failing or

improperly functioning septic systems can be a source of phosphorus, and the extent of the load is significantly determined by geologic and soil constraints. On Greenwood Lake's northern side in New York, there are severe restrictions on the operation of septic systems based on lack of depth to bedrock and steep slopes. The Village of Greenwood Lake adopted an ordinance in 2001, which requires proof of proper functioning systems and pumpout every three years.

#### *An Overview of Greenwood Lake*

Greenwood Lake straddles the New York-New Jersey border, extending from West Milford Township in Passaic County, New Jersey to Warwick in Orange County, New York. With a surface area of 1,884 acres and an average depth of 5.2 meters, Greenwood Lake's watershed encompasses approximately 16,036 acres. Characteristics of the lake vary significantly between its northern and southern sections. In New York, the lake is deep with a maximum depth of 18 meters and steeply sloping banks. In contrast, New Jersey's portion of the lake is shallow with a maximum depth of three meters and gradually sloping banks.



The DEP is working with the Greenwood Lake Commission to address the septic tank issues in New Jersey. The DEP, in partnership with the U.S. Department of Agriculture and the Natural Resource Conservation Service's Liberty Resource Conservation and Development Council (covering Hudson, Essex, Passaic and Bergen counties), conducted a well-attended septic management workshop last fall. This workshop targeted the Greenwood Lake community including the lake commission, municipal and county officials and other private and public stakeholders.

An in-depth investigation of septic issues will be required to complete the Lake Characterization and Restoration Plan. Issues to be covered include detailed information on the number of septic systems which potentially impact the lake, the percentage of failing or improperly functioning systems, the ability of standard systems to function given specific geologic and soil restrictions, the area required for a properly functioning leach field given the environmental constraints, other options and a cost analysis.

This broad-based stewardship and multifaceted approach to restoration will lead to improved water quality and a healthier ecosystem in Greenwood Lake.

For more information about Greenwood Lake restoration, call Ken Klipstein or Pat Rector at (609) 633-3812, or for TMDL development information, call Barbara Hirst at (609) 633-1441.



#### Watershed Educators Conference Set for June 2005

"Making the Watershed Connection - An Interactive Conference for New Jersey Educators" will be held June 28 and June 29, at the Rutgers EcoComplex in Burlington County. The Watershed Partnership for New Jersey and the New Jersey Department of Environmental Protection invites educators to attend the two-day conference, which will explore New Jersey's dynamic watersheds and connect educators with regional resources, curriculum materials and

much more. Field trips on the second day will allow educators to appreciate the beauty and complexities of the state's watersheds and discover more ways to teach our future leaders about Earth's most precious resource -- water. Professional development credits are available. For more information, visit www.wpnj.org or www.nj.gov/dep/watershedmgt. To register go to http://aesop.rutgers.edu/~ocpe/courses/current/ew0320ha05.html

